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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

Complete If Known	
Application Number	10/665,439
Filing Date	18 September 2003
First Named Inventor	Lester F. Ludwig
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	2738-11

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number - Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
FKP	A1	US-3,519,331	07-07-1970	Cutrona et al.	
	A2	US-4,572,616	02-25-1986	Kowel et al.	
	A3	US-5,016,976	05-21-1991	Horner et al.	
	A4	US-5,061,046	10-29-1991	Lee et al.	
	A5	US-5,323,472	06-21-1994	Falk	
	A6	US-5,416,618	05-16-1995	Juday	
	A7	US-5,426,521	06-20-1995	Chen et al.	
	A8	US-5,432,336	07-11-1995	Carangelo et al.	
	A9	US-5,544,252	08-06-1996	Iwaki et al.	
	A10	US-5,706,139	01-06-1998	Kelly	
	A11	US-5,815,233	09-29-1998	Morokawa et al.	
	A12	US-5,859,728	01-12-1999	Colin et al.	
	A13	US-5,959,776	09-28-1999	Pasch	
	A14	US-6,021,005	02-01-2000	Cathey, Jr. et al.	
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	A16	US-6,252,908 B1	06-26-2001	Tore	
	A17	US-6,404,553 B1	06-11-2002	Wootton et al.	
	A18	US-6,421,163 B1	07-16-2002	Culver et al.	
	A19	US-6,505,252 B1	01-07-2003	Nagasaka	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
FKP	B1	05-066377	03-19-1993	Amako Atsushi et al.		

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Sheet 2 of 5

Complete if Known	
Application Number	10/665,439
Filing Date	18 September 2003
First Named Inventor	Lester F. Ludwig
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	2738-11

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
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	C2	N. I. ACHIESER, Theory of Approximation, Dover, New York, 1992. pp. 1-23 & 78-81.	
	C3	JUN AMAKO, et al., "Kinoform using an electrically controlled birefringent liquid-crystal spatial light modulator", Applied Optics, vol. 30, No. 32, Nov. 10, 1991, pp. 4622-4628.	
	C4	V. BARGMANN, "On a Hilbert Space of Analytical Functions and an Associated Integral Transform," Comm. Pure Appl. Math, vol. 14, 1961, 187-214.	
	C5	L. M. BERNARDO, O. D. D. Soares, "Fractional Fourier Transforms and Imaging," Journal of Optical Society of America, vol. 11, No. 10, Oct. 1994. pp. 2622-2625.	
	C6	PHILIP M. BIRCH, et al., "Real-time optical aberration correction with a ferroelectric liquid-crystal spatial light modulator", Applied Optics, vol. 37, No. 11, Apr. 10, 1998, pp. 2164-2169.	
	C7	Y. BITRAN, H. M. OZAKTAS, D. MENDLOVIC, R.G.DORSCH, A. W. LOHMANN, "Fractional Fourier Transform: Simulations and Experimental Results," Applied Optics vol. 34 No. 8, Mar. 1995. pp. 1329-1332.	
	C8	E.U. CONDON, "Immersion of the Fourier Transform in a Continuous Group of Functional Transforms," in Proceedings of the National Academy of Science, vol. 23, pp. 158-161, 1937.	
	C9	P. J. DAVIS, Interpolation and Approximation, Dover, New York, 1975. pp. 24-55, 106-185, 328-340.	
	C10	B. W. DICKINSON AND D. STEIGLITZ, "Eigenvectors and Functions of the Discrete Fourier Transform," in IEEE Transactions on Acoustics, Speech, and Signal Processing, vol. ASSP-30, No. 1, Feb. 1982.	
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Examiner Signature	KZPatel	Date Considered	9/17/05

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Sheet 3 of 5

Complete if Known	
Application Number	10/665,439
Filing Date	18 September 2003
First Named Inventor	Lester F. Ludwig
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	2738-11

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
HRP	C12.	M. FATIH ERDEN, et al., "Design of dynamically adjustable anamorphic fractional Fourier transformer", Optics Communications 136 (Mar. 1, 1996), pp. 52-60.	
	C13.	M. F. ERDEN, "Repeated Filtering in Consecutive Fractional Fourier Domains," doctoral dissertation at Bilkent Univ., Aug. 18, 1997.	
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	C15.	J. W. GOODMAN, Introduction to Fourier Optics, McGraw-Hill, New York, 1968. pp. 77-197.	
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	C19.	F. H. KERR, "A Distributional Approach to Namias' Fractional Fourier Transforms," in Proceedings of the Royal Society of Edinburgh, vol. 108A, pp. 133-143, 1983.	
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✓	C21.	M. A. KUTAY, M. F. ERDEN, H.M. OZATKAS, O. ARIKAN, C. CANDAN, O. GULERYUZ, "Cost-effective Approx. of Linear Systems with Repeated and Multi-channel Filtering Configurations," IEEE pp 3433-3436, May 12, 1998.	

Examiner Signature	HRPatel	Date Considered	9/17/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 5

Complete if Known	
Application Number	10/665,439
Filing Date	18 September 2003
First Named Inventor	Lester F. Ludwig
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	2738-11

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
KZP	C22	M. A. KUTAY, "Generalized Filtering Configurations with Applications in Digital and Optical Signal and Image Processing," doctoral dissertation at Bilkent Univ. Feb. 24, 1999.	
	C23	M. A. KUTAY, M. F. ERDEN, H.M. OZATKAS, O. ARIKAN, C. CANDAN, O. GULERYUZ, "Space-bandwidth-efficient Realizations of Linear Systems," Optics Letters, vol. 23 No. 14, Jul. 15, 1998. pp. 1069-1071.	
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	C25	L. LEVI, Applied Optics, vol. 2 (Sec. 19.2), Wiley, New York, 1980.	
	C26	ADOLF W. LOHMANN, "A fake zoom lens for fractional Fourier experiments", Optics Communications 115 (Apr. 1, 1995) 437-443.	
	C27	L. F. LUDWIG, "General Thin-Lens Action on Spatial Intensity (Amplitude) Distribution Behaves as Non-Integer Powers of Fourier Transform," Spatial Light Modulators and Applications Conference, South Lake Tahoe, 1988.	
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	C30	H. M. OZAKAS, "Digital Computation of the Fractional Fourier Transform," IEEE Transactions on Signal Processing, Vol. 44, No. 9, pp. 2141-2150, September 1996.	
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Examiner Signature	KZ Patel	Date Considered	9/17/05

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Sheet 5 of 5

Complete if Known	
Application Number	10/665,439
Filing Date	18 September 2003
First Named Inventor	Lester F. Ludwig
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	2738-11

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LFL	C33	H. M. OZAKTAS, D. MENDLOVIC, "Fractional Fourier Transforms and their Optical Implementation I," Journal of the Optical Society of America, A vol. 10, No. 9, pp. 1875-1881, Sep. 1993.	
	C34	H. M. OZAKTAS, D. MENDLOVIC, "Fractional Fourier Transforms and their Optical Implementation II," Journal of the Optical Society of America, A vol. 10, No. 12, pp. 2522-2531, Dec. 1993.	
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	C40	N. WIENER, "The Fourier Integral and Certain of Its Applications," (Dover Publications, Inc., New York, 1958) originally Cambridge University Press, Cambridge, England, 1933. pp. 46-71.	
✓	C41	"Taking the Fuzz out of Photos," Newsweek, vol. CXV, No. 2, Jan. 8, 1990.	

Examiner Signature	LFLudwig	Date Considered	9/17/05

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